



# SAP NetWeaver Master Data Management (MDM)



## **SAP NetWeaver**

**The Case for Master Data Management**

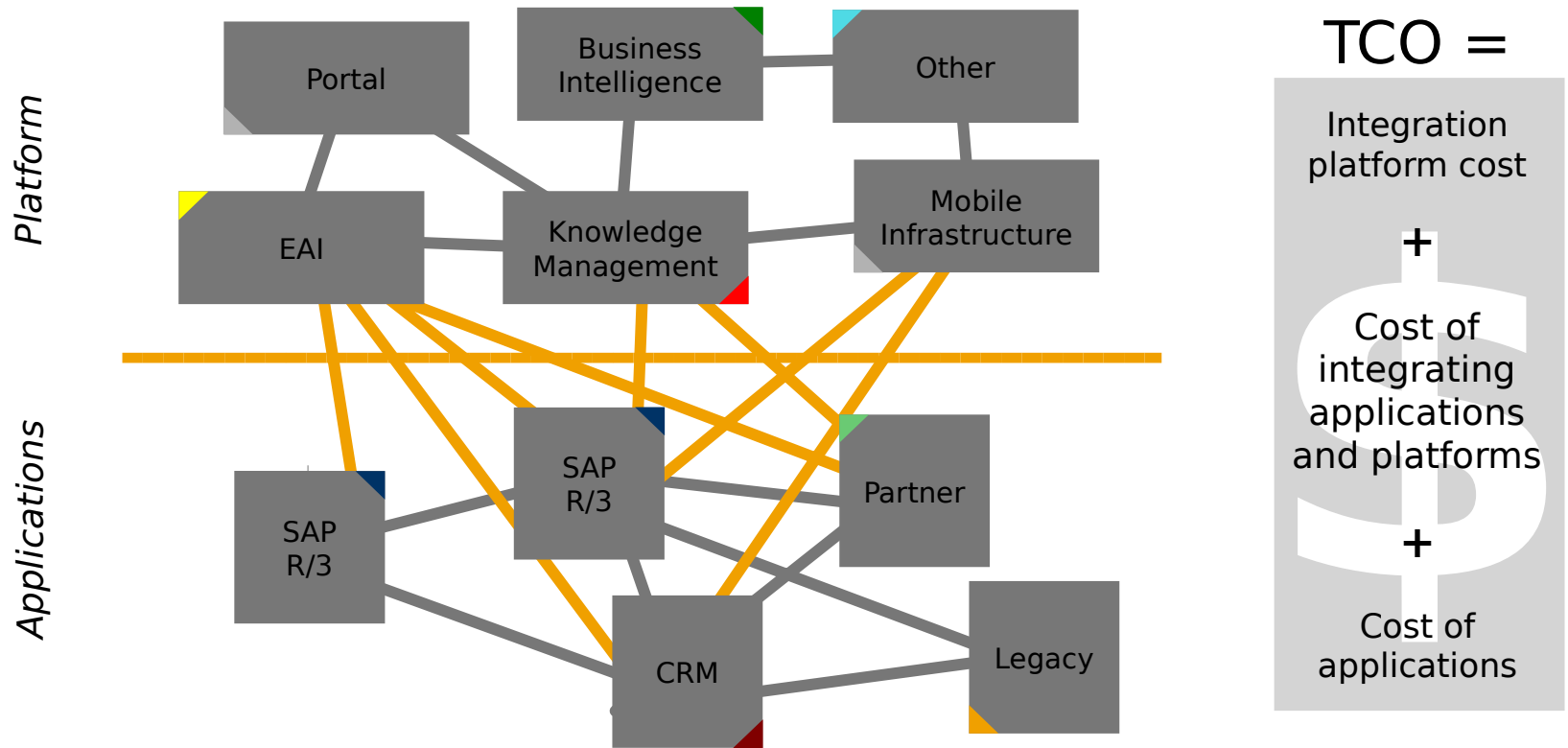
**SAP MDM Scenarios**

**MDM Building Blocks**

**Data Matching**

**Customer Examples**

# THE COMPLETE TCO PICTURE



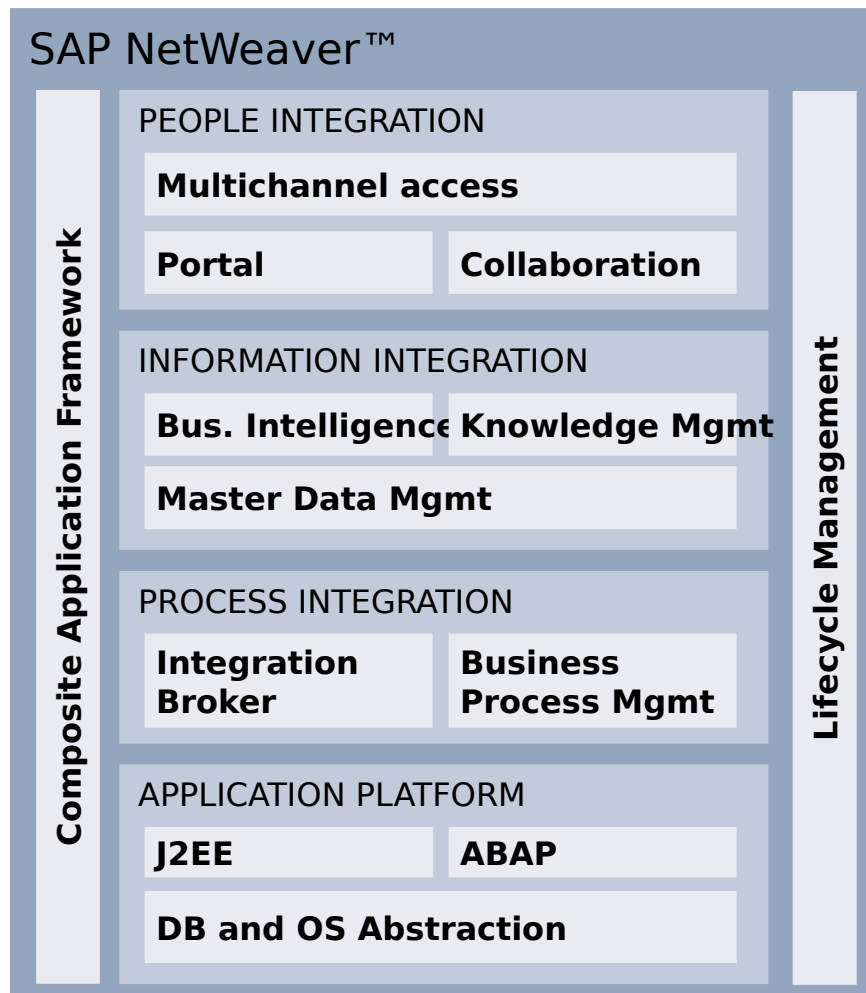
**NetWeaver is SAP's open, pre-integrated, and complete Technology Infrastructure**

**All SAP applications run on the NetWeaver platform**

**NetWeaver provides a platform for developing and deploying custom-built applications**

**NetWeaver provides a platform for interfacing and integrating third-party applications**

**NetWeaver provides end-to-end interoperability with multiple industry standards, such as J2EE and .NET**



### Deliver Superior business value

- Prepackaged business content
- Reduces complexity

### Open, flexible architecture

- Service oriented architecture
- Open standards-based

### Reduce TCO of the entire IT landscape

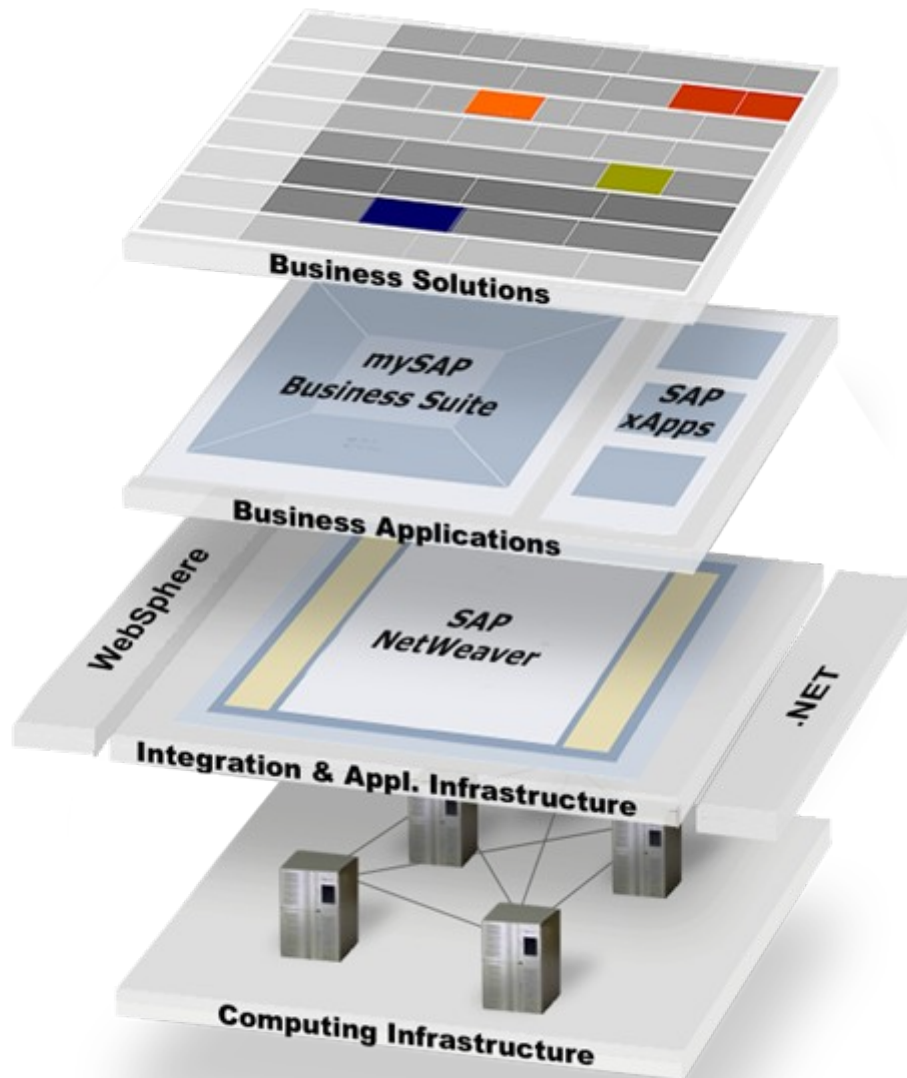
- Leverage existing investments
- One integrated platform
- Best Integration with SAP

# SAP NetWeaver Is Open

Driving TCO Reduction Through Industry Standards

Orgs	SAP NetWeaver™	Standards Supported (Selection)
W3C	XML Encr. & Sign., DSIG, SAML ...	PEOPLE INTEGRATION
OASIS		<b>Multi channel access</b> <b>Portal</b> <b>Collaboration</b>
JCP		JAAS, WSRP, Personal Java
WS-I		ICE , WebDav , XML/A, JMI, XMI, CWM, ODBO
Eclipse .org	XML Encr. & Sign., DSIG, SAML ...	INFORMATION INTEGRATION
mySQL		<b>Knowledge Mgmt</b> <b>Business Intelligence</b> <b>Master Data Mgmt</b>
OMG		PROCESS INTEGRATION
...		<b>Integration Broker</b> <b>Business Process Mgmt</b>
	XML Encr. & Sign., DSIG, SAML ...	BPEL, CIDX, RosettaNet, CPPA
		APPLICATION PLATFORM
		<b>J2EE</b> <b>ABAP</b> <b>DB and OS Abstraction</b>
		HTTP, XML, SMTP, J2EE, WSDL, SOAP, UDDI, XSLT

# SAP NetWeaver in SAP's Product Portfolio

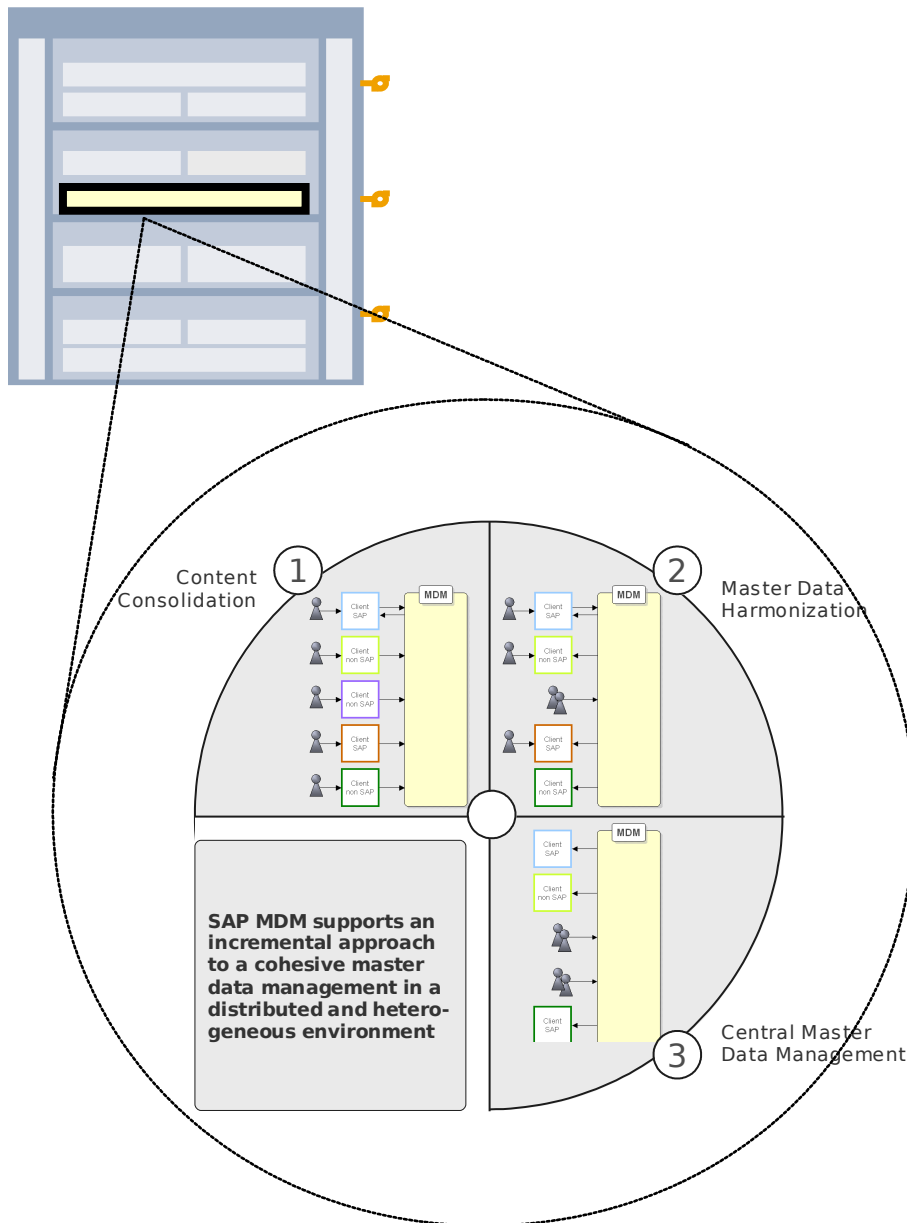


**SAP Industry Solutions**

**mySAP Business Suite**

**SAP NetWeaver**

# SAP NetWeaver™ - Master Data Management



## SAP Master Data Mgmt

- Information integrity across the business network
- Services and support to consolidate content, harmonize and centrally manage master data, e.g. product data, customer data
- MDM consolidation function available with mySAP SRM





SAP NetWeaver

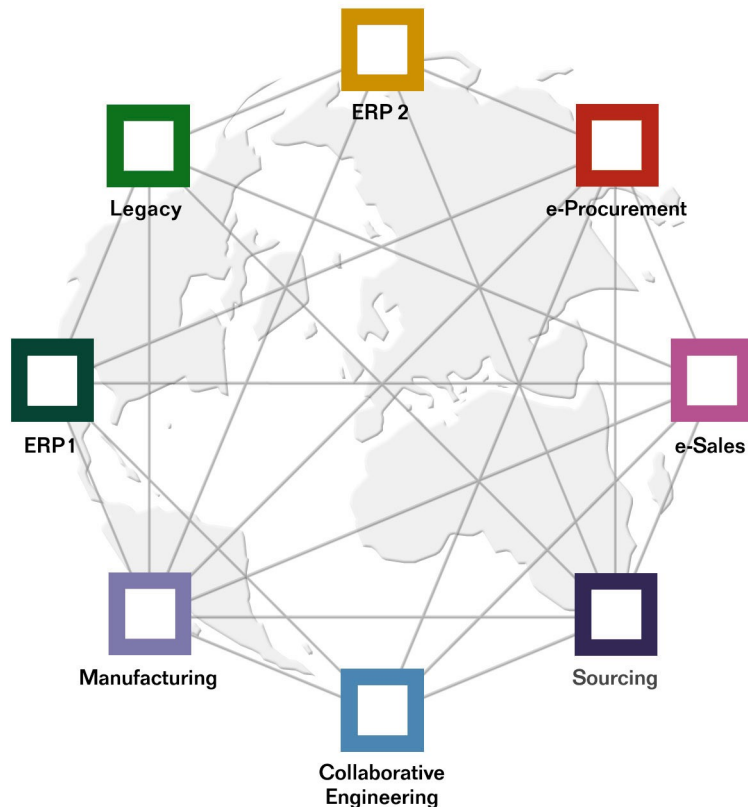
## **The Case for Master Data Management**

SAP MDM Scenarios

MDM Building Blocks

Data Matching

Customer Examples



## Captured master data

- Trapped and siloed data
- Hindered cross-system collaboration
- Multiple data maintenance

## Unaligned master data knowledge

- Inconsistent master data
- No duplicates recognition
- Cumbersome system-wide analytics

## A patchwork of processes

- Flow is hindered by technical restrictions
- Point-to-point process links
- High alignment efforts

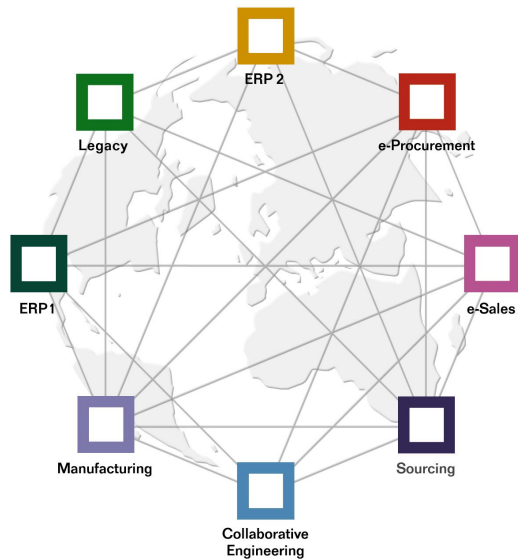


SAP Master Data Management (SAP MDM) creates a cohesive environment that drives data integration to support business processes in a dynamic and heterogeneous system environment

SAP MDM fosters collaboration by ensuring cross system data consistency – regardless of physical system location and vendor

SAP MDM views consistent data as the key building block for end-to-end business processes to positively affect process execution, costs-of-business, and total cost-of-ownership for business-class IT systems

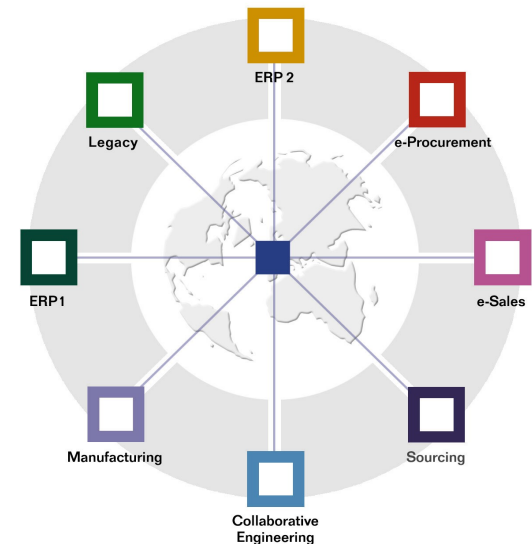
# Benefits Through SAP MDM - Example



5,000,000 master data  
10 % of them are duplicate

10,000 new  
master data per year

10 connected systems



SAP Master Data Management

**SAP MDM accelerates business processes, ensures competitive advantages and lowers total cost of ownership through ...**

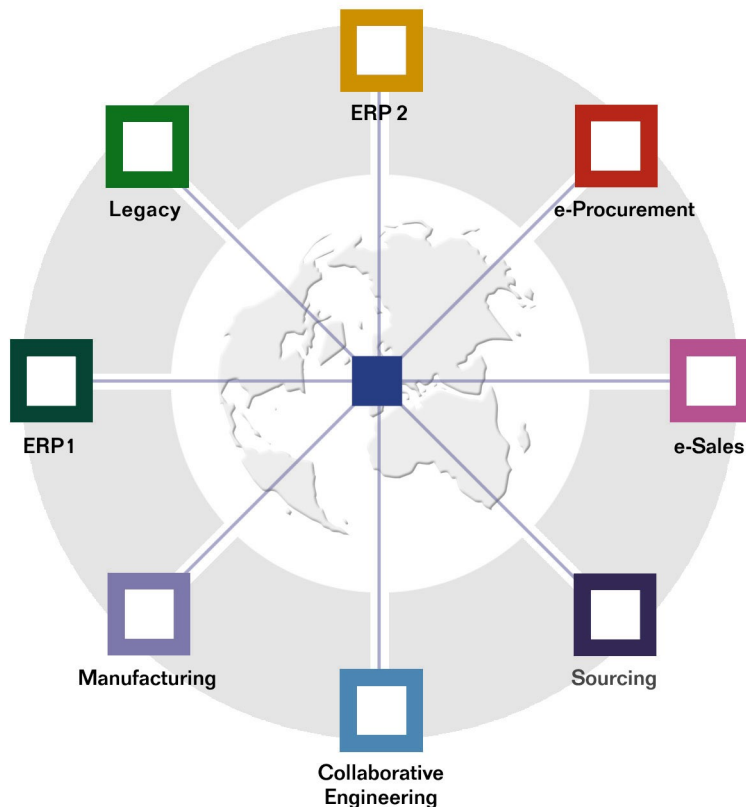
reduced maintenance:  
 $5,000,000 \times \$0.1 = \$500,000$

avoiding duplicates:  
 $10,000 \times 10\% \times \$1000 = \$1,000,000$

controlled distribution:  
 $10 \times \$200,000 = \$2,000,000$

better decision making:  
\$500,000

**... up to \$ 4.0 million per year**



SAP Master Data Management

## Shared master data

- Harmonized
- Extendible
- One-stop data maintenance

## Aligned master data knowledge

- Central master data repository
- Duplicate recognition
- Synchronized analytics

## Federated processes

- Accelerated process flow
- Open for localization
- Controlled replication



SAP NetWeaver

The Case for Master Data Management

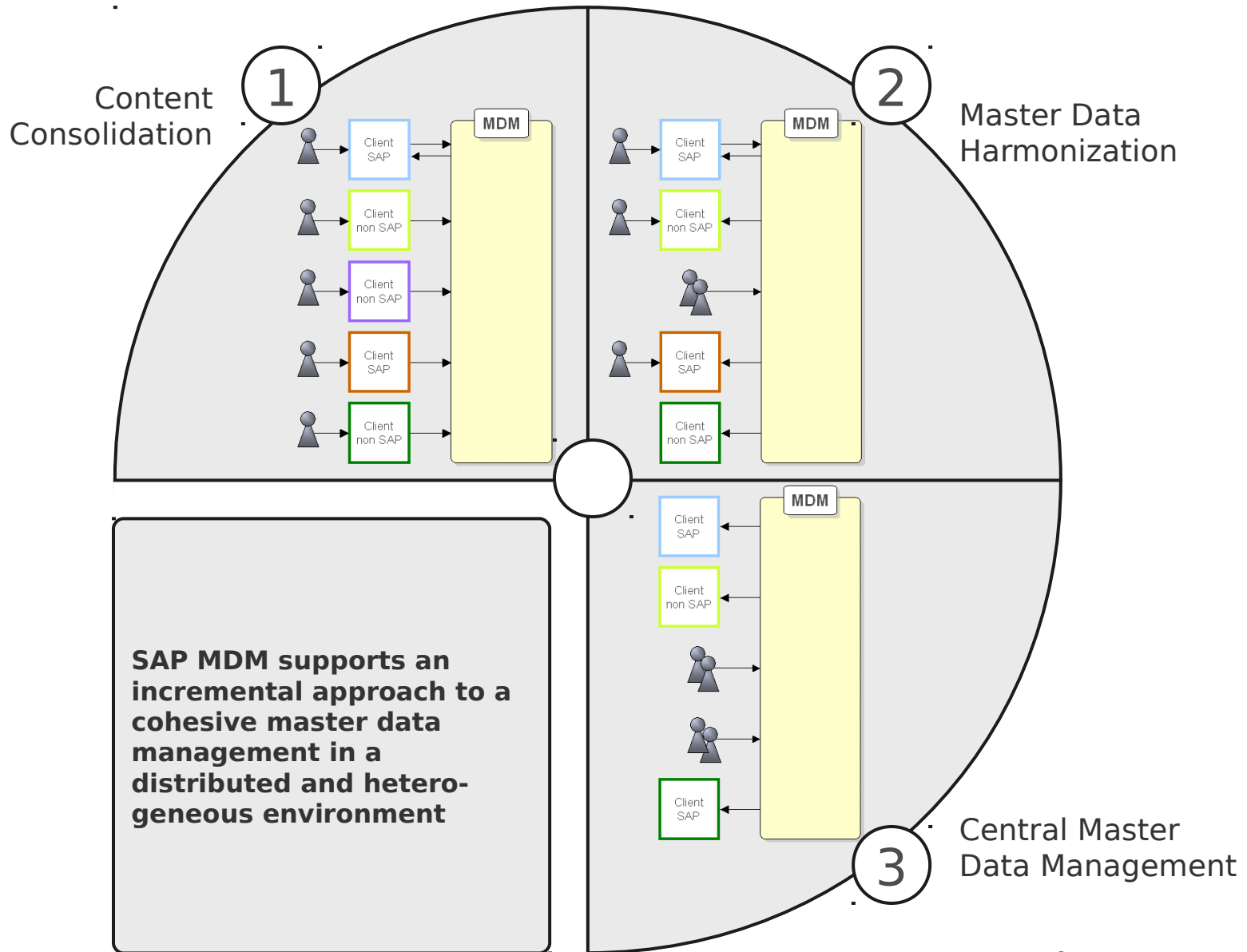
**SAP MDM Scenarios**

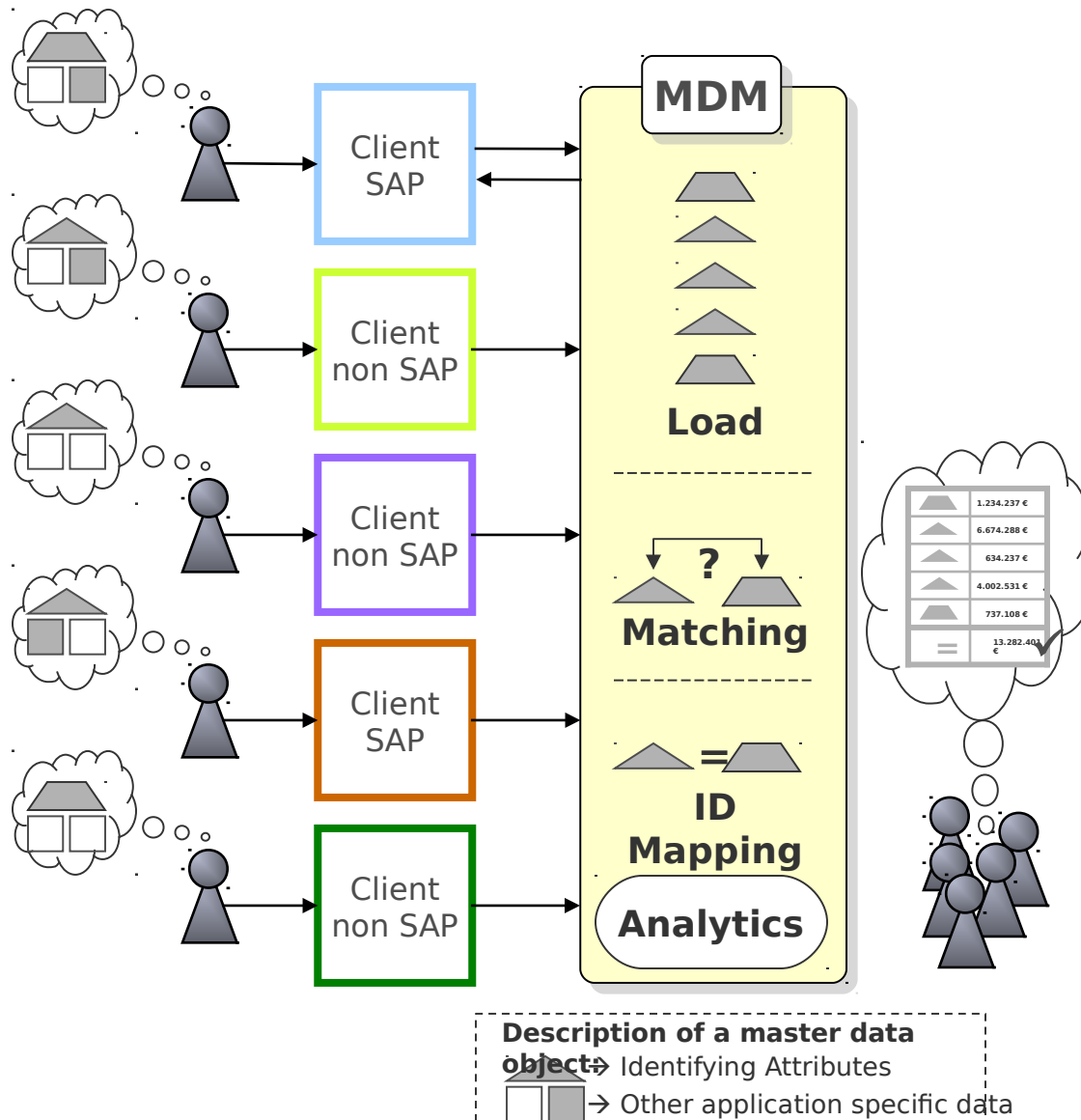
MDM Building Blocks

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# SAP Master Data Management – An Incremental Approach



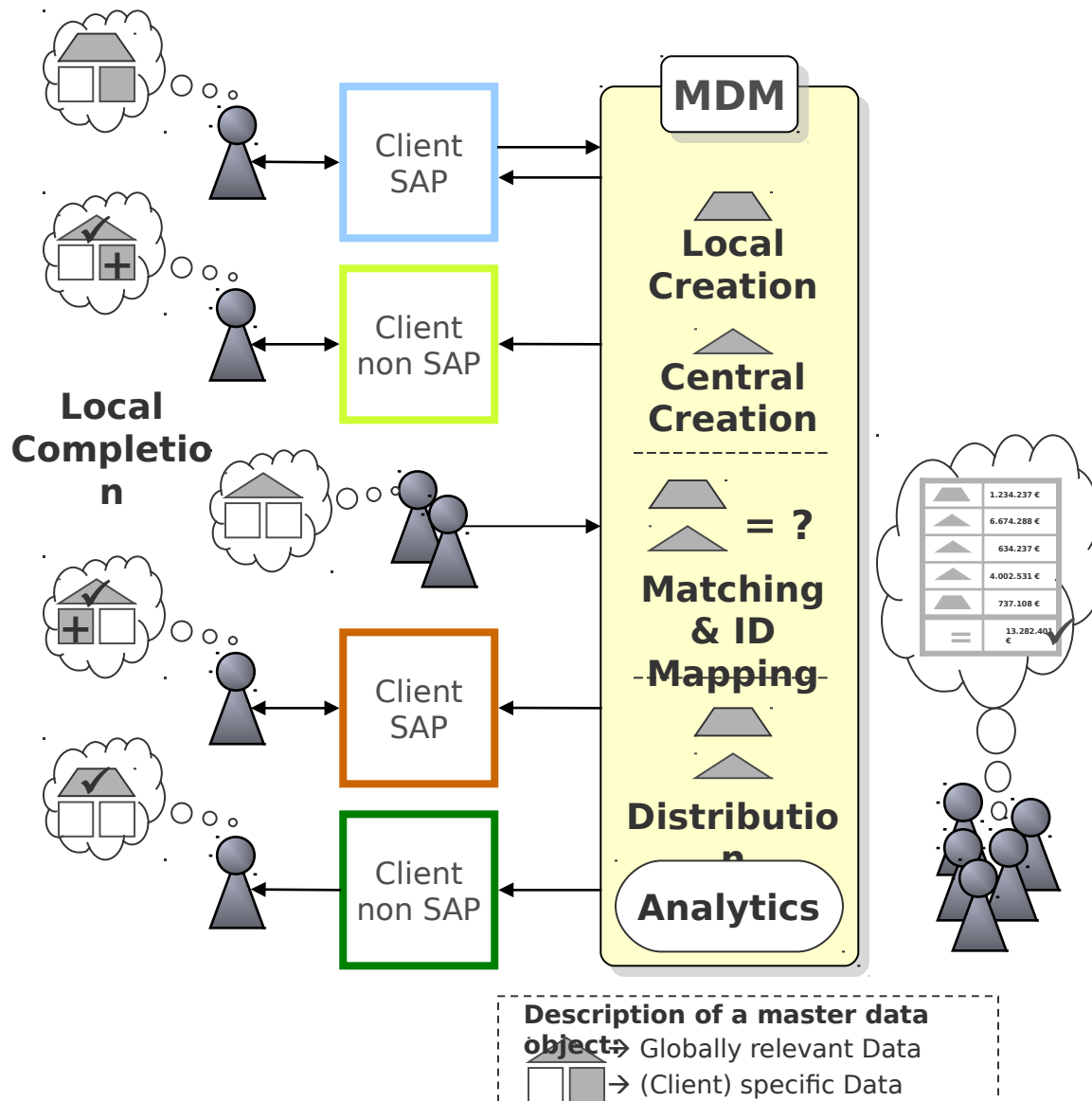


## Content Consolidation **Core Process Steps:**

1. Load of master data objects as they were maintained in their local applications (clients)
2. Matching of uploaded master data objects to identify duplicates
3. Providing ID Mapping Information based on matching results
4. Providing ID Mapping Information for subsequent usage (I.e. in Business Intelligence)
5. Run MDM Analytics for business-wide analyses based on consolidated master data



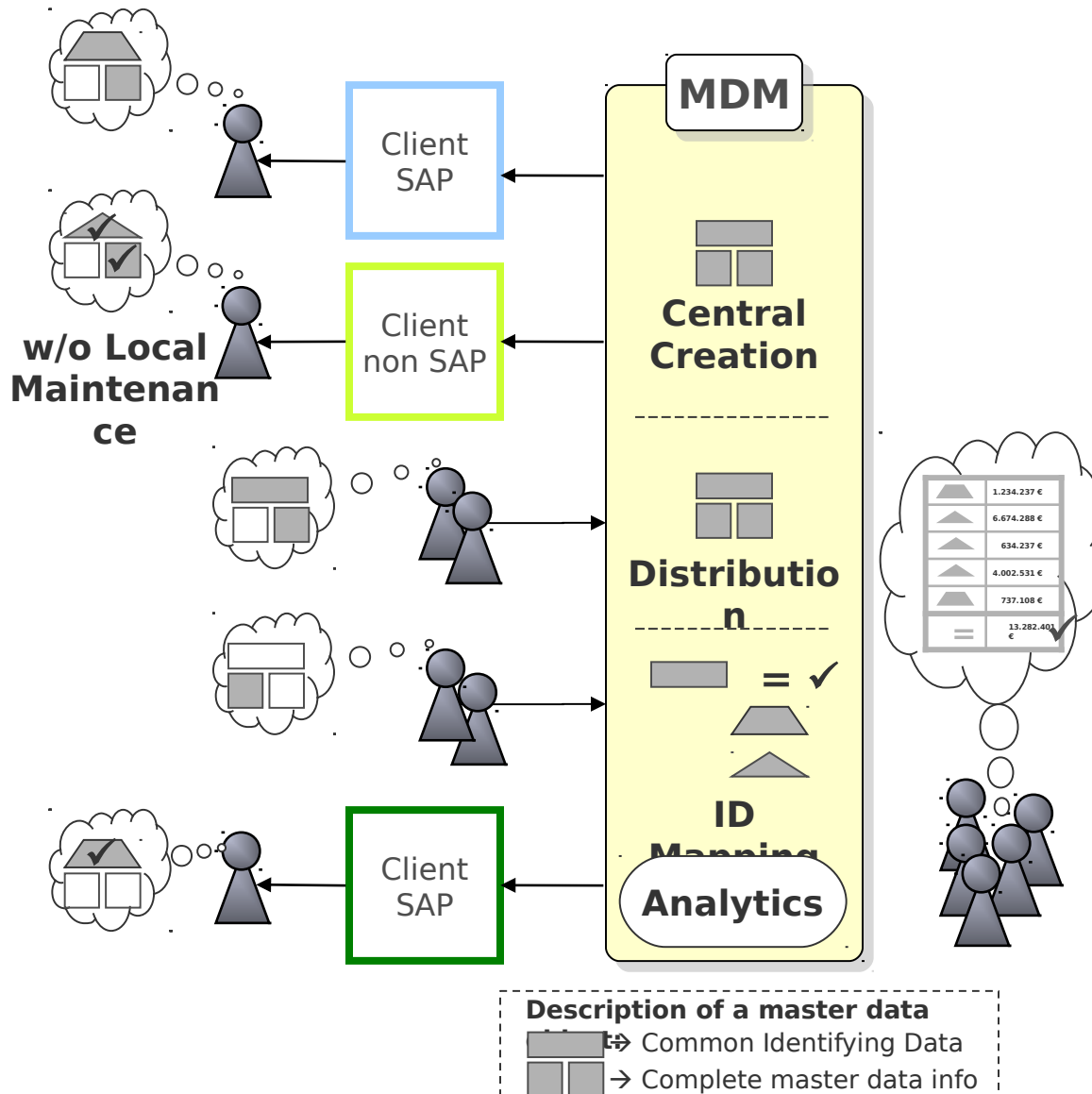
# Master Data Harmonization



## Master data harmonization **Core Process Steps:**

1. Central Creation of master data objects just covering the global information of the master data object
2. Local Creation within the master data environment of the application system (client) and distributing their global information to MDM
3. Continuous matching processes identify duplicates and result in ID Mapping between them
4. Distribution of global master data information to the various clients
5. Local Completion of master data within the local environment
6. Use of ID Mapping information for MDM Analytics like business-wide analyses etc.

# Central Master Data Management



## Central Master Data Management

### Core Process Steps:

1. Central Creation of master data objects covering the complete information as used later in the local application systems (clients)
2. Distribution of centrally maintained master data information as individual objects as they are defined in the local application systems
3. Use of master data within local application processes w/o local maintenance
4. Use of ID Mapping information for MDM Analytics like business-wide analyses etc.



SAP NetWeaver

The Case for Master Data Management

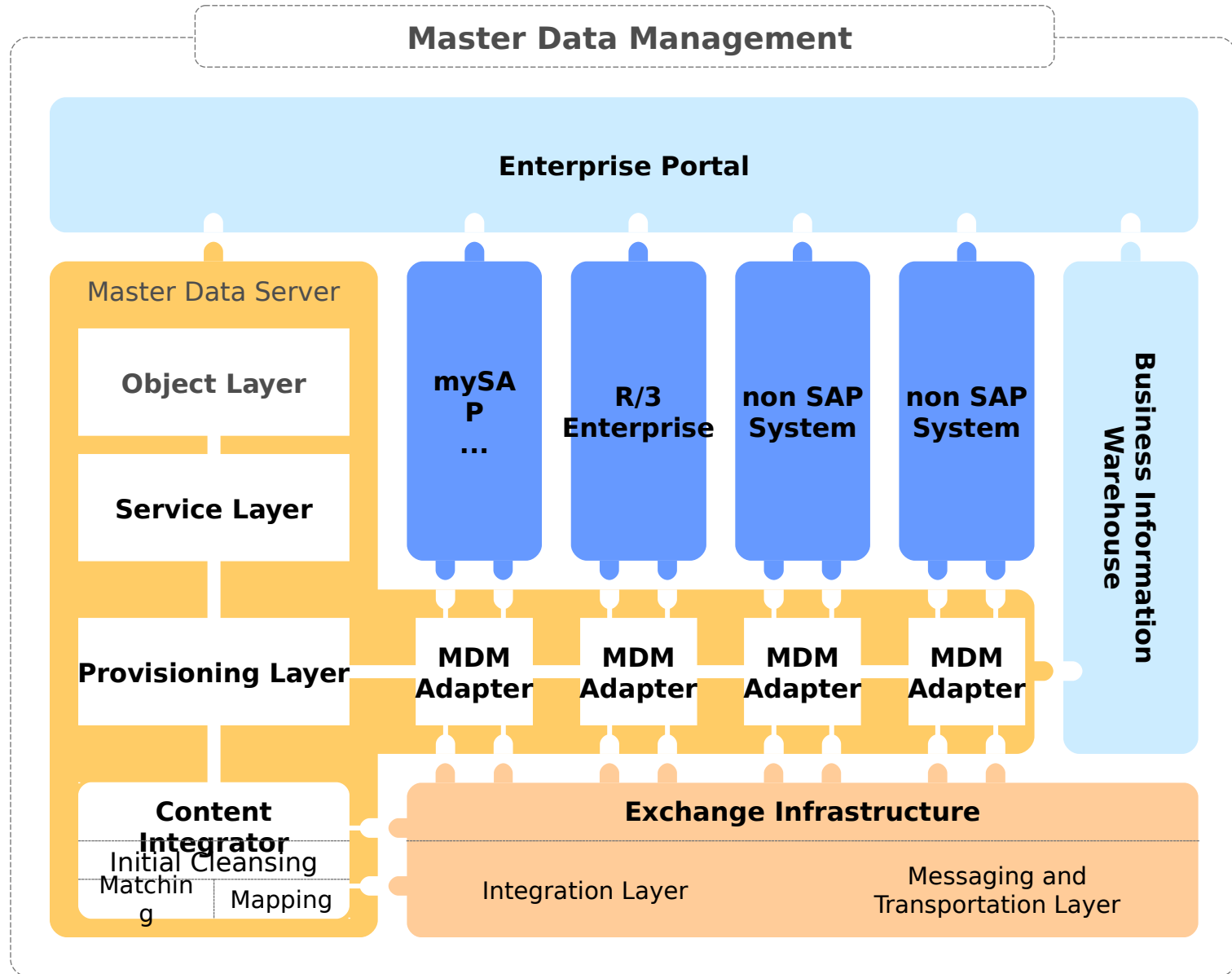
SAP MDM Scenarios

**MDM Building Blocks**

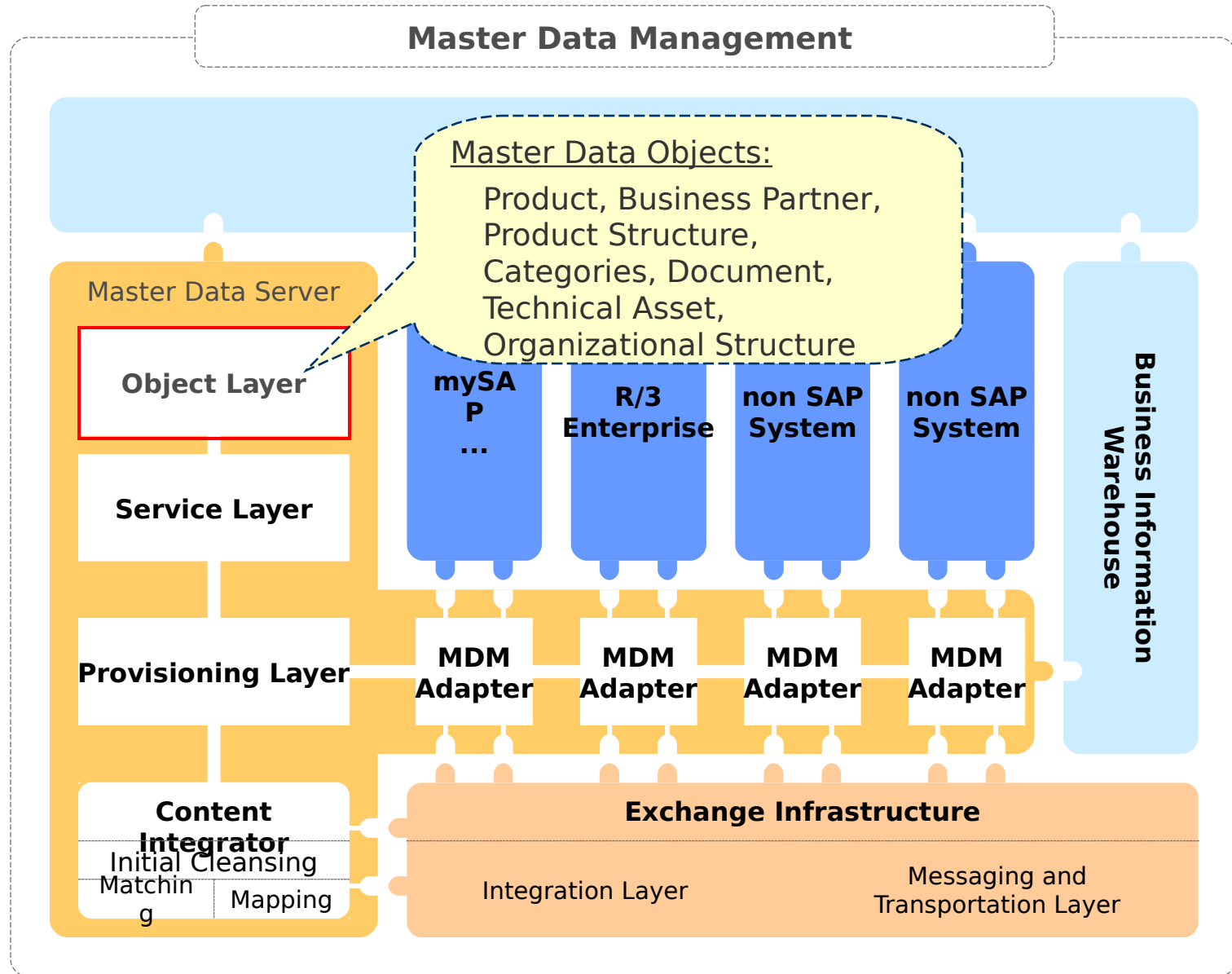
Data Matching

Customer Examples

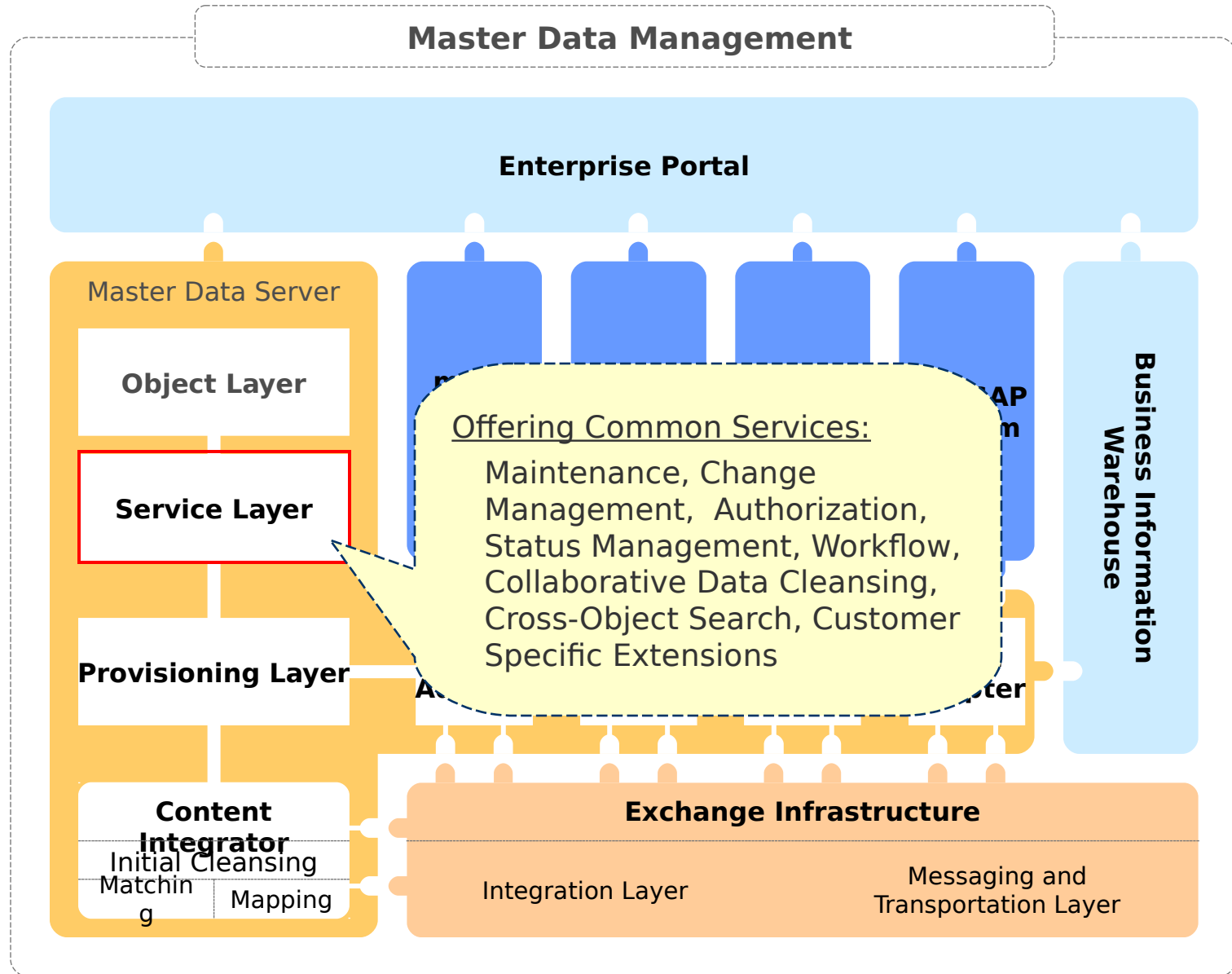
# MDM – Building Blocks



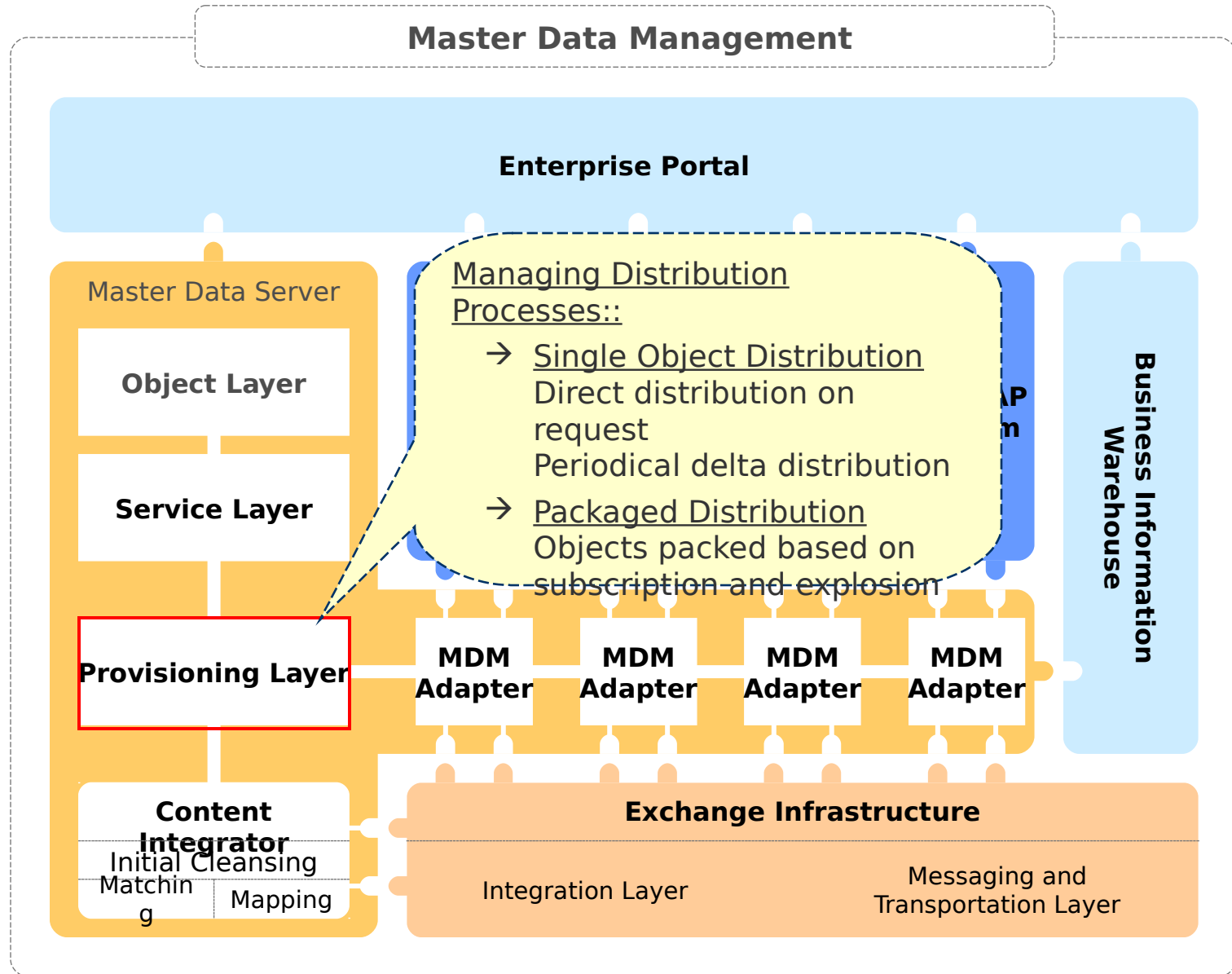
# SAP MDM – Object Layer



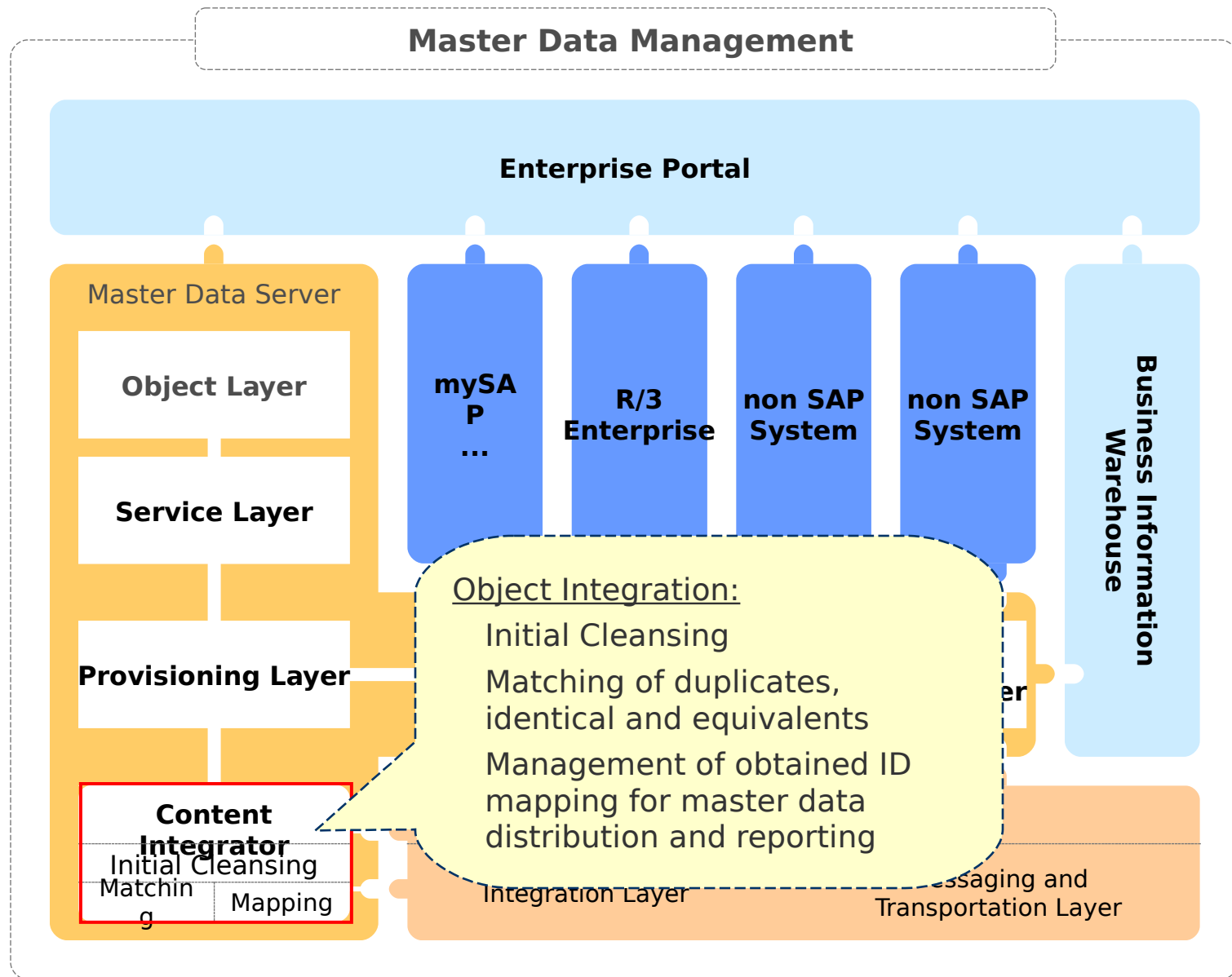
# SAP MDM – Service Layer



# SAP MDM – Provisioning Layer

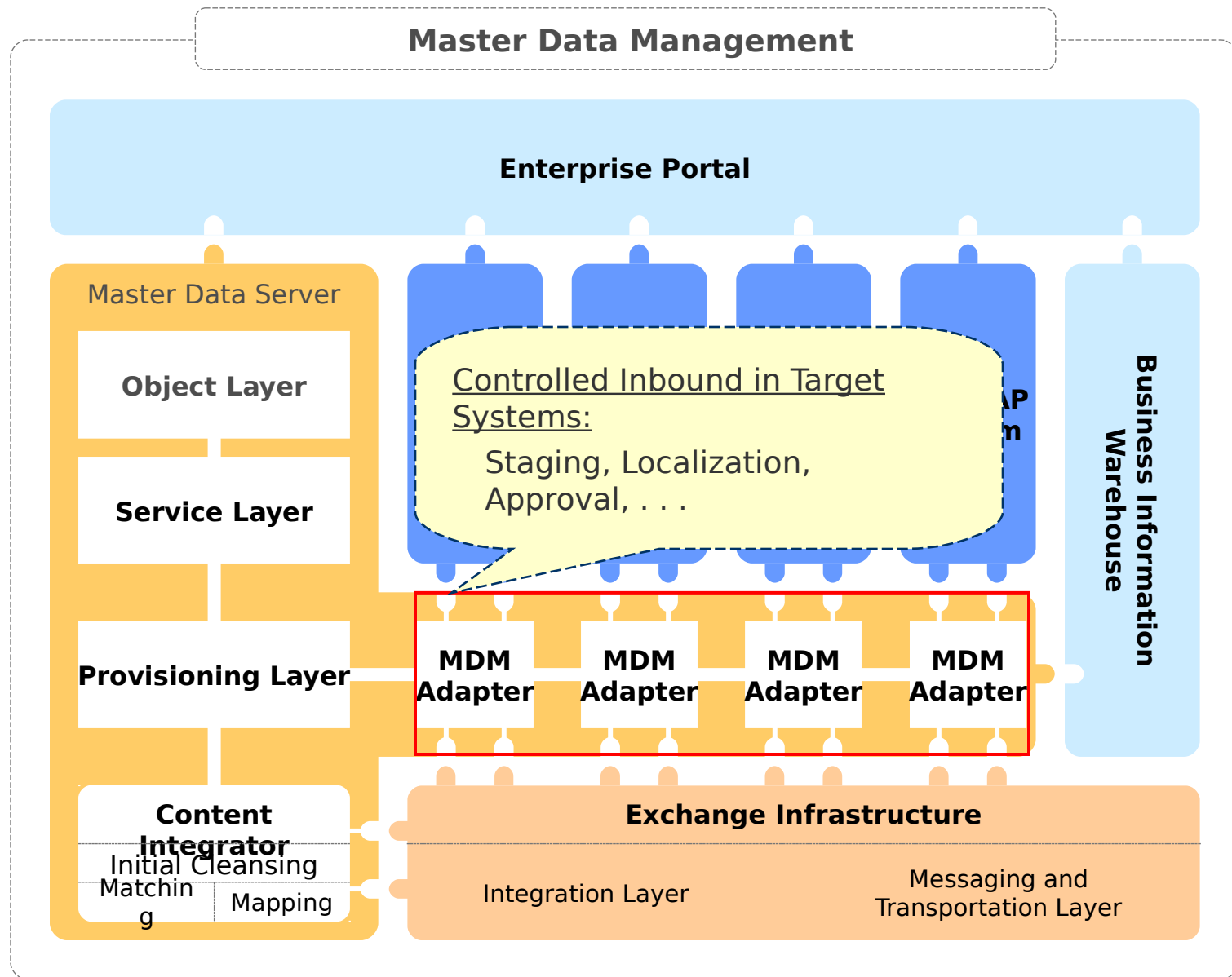


# SAP MDM – Content Integrator

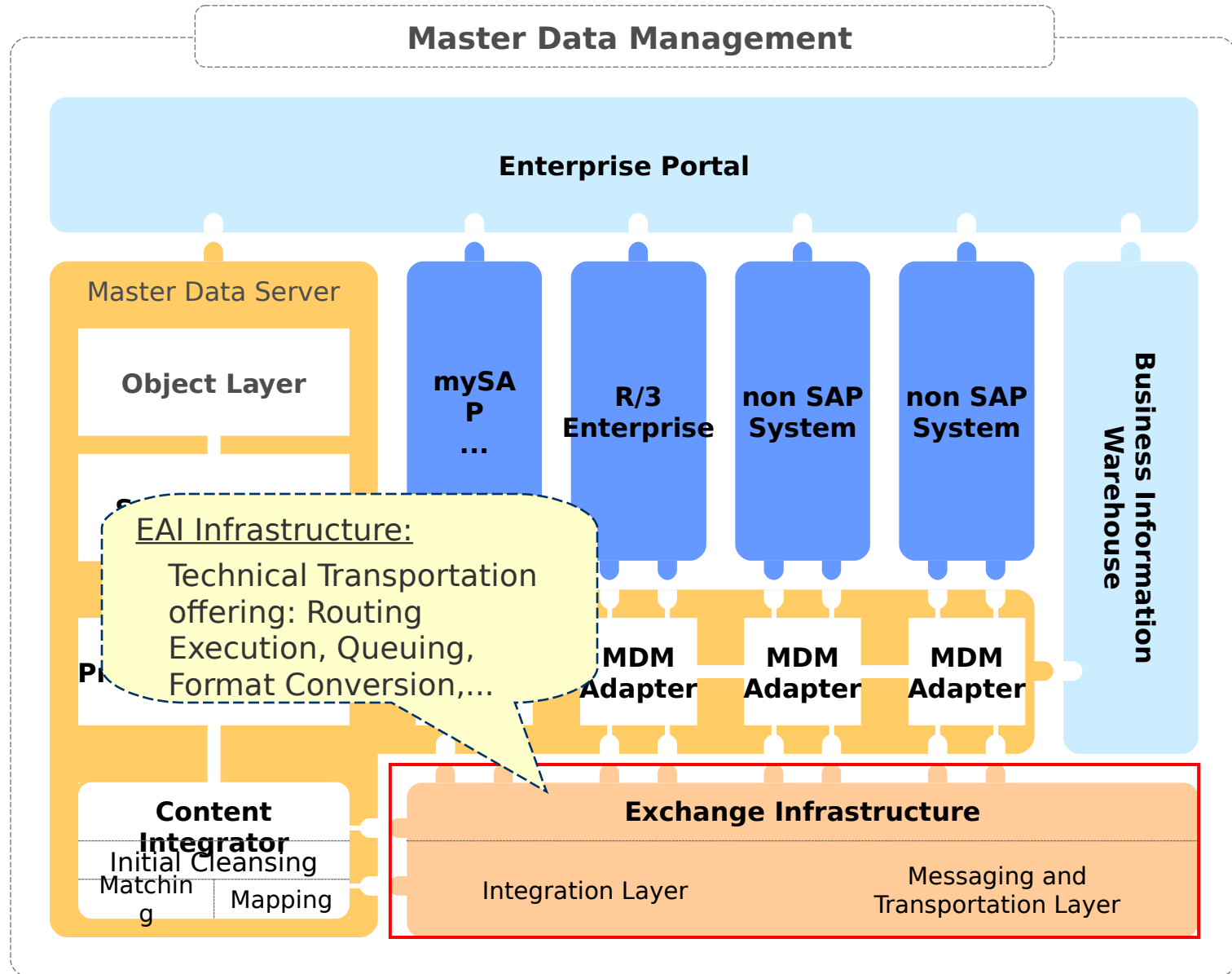




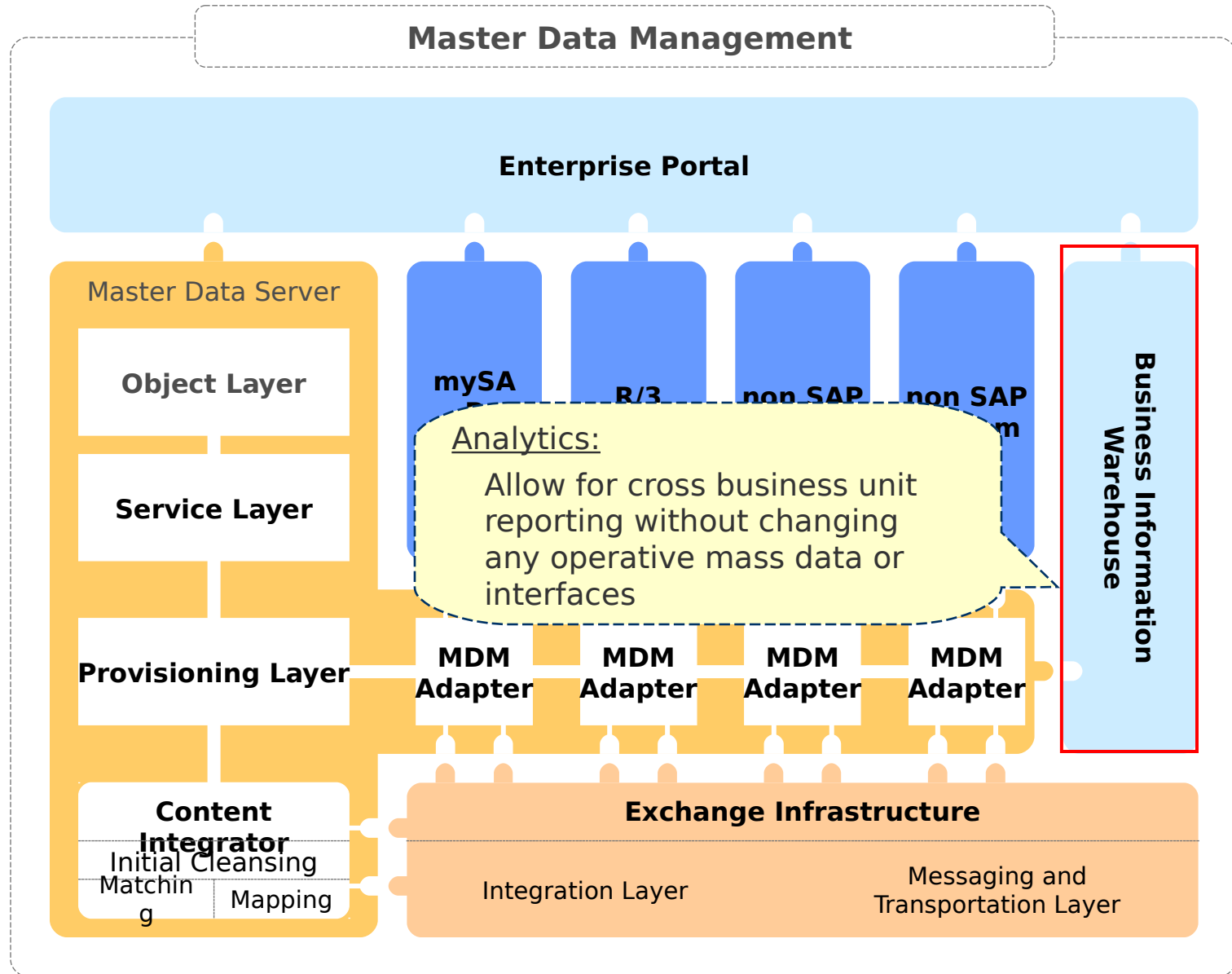
# SAP MDM – Adapter

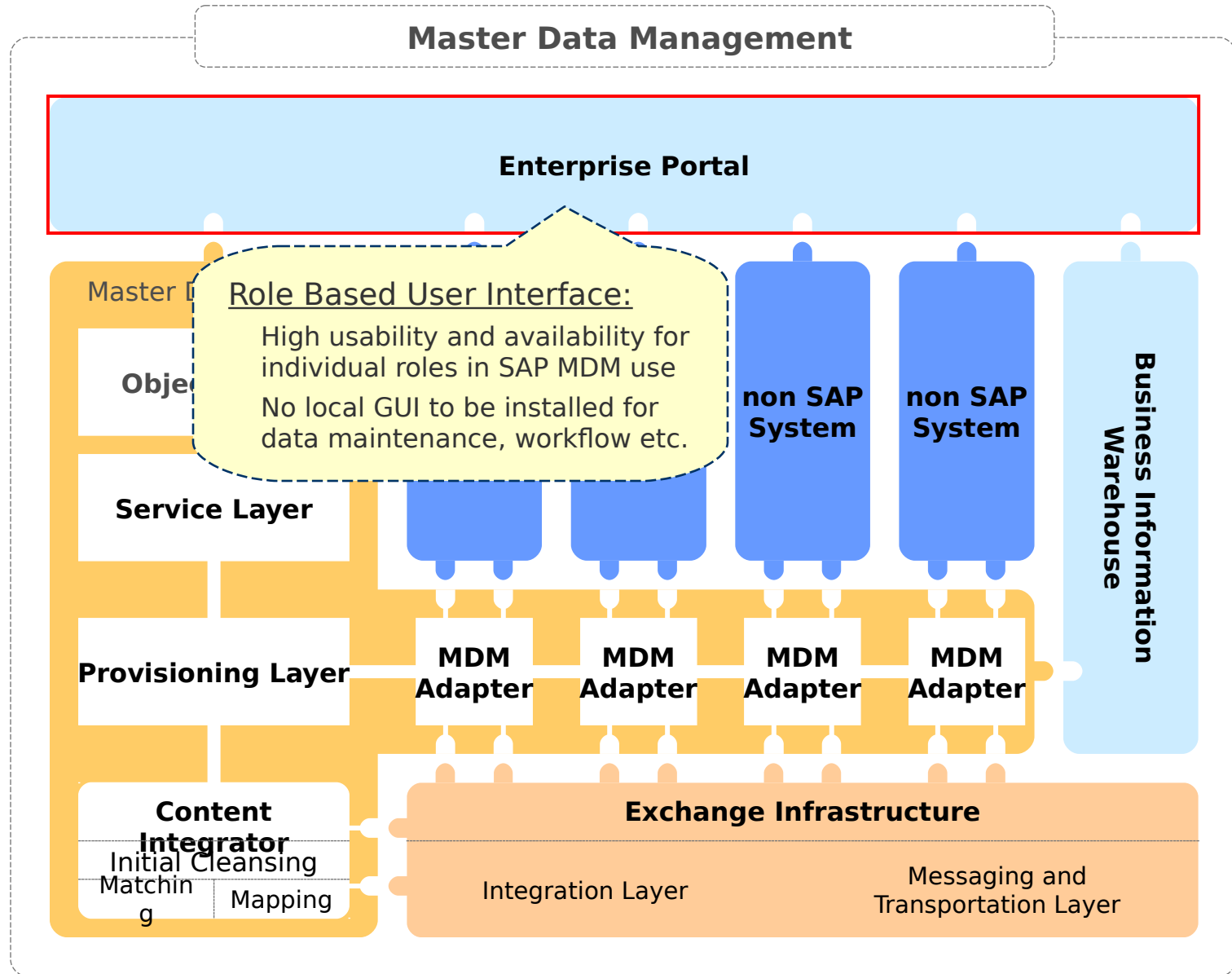


# SAP MDM – EAI Infrastructure



# SAP MDM - Analytics







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**Data Matching**

**Customer Examples**



The screenshot displays the SAP IT Explorer interface. At the top, there's a navigation bar with tabs like File, Edit, View, Favorites, Tools, and Help. Below it is a search bar and a toolbar with icons for Back, Forward, Home, Search, Favorites, Media, and other functions. The address bar shows the URL: http://lwd9177.wdf.sap.corp:1080/SAPPortal.

The main content area is titled "Welcome Manager MD" and includes a navigation menu with options like Workflow, Process Control, Data Consolidation, Products, Business Partners, Technical Assets, and Publication. The "Products" tab is selected, leading to a page titled "Set Type: Change ZWHIRLPOOL".

In the "Set Type: Change ZWHIRLPOOL" window, there are fields for "SetType" (ZWHIRLPOOL) and "Description" (Whirlpool Set Type). A warning icon indicates a change. Below these fields, there are two tabs: "Definition" and "Attributes Assigned". The "Attributes Assigned" tab is active, showing a table with columns: Attribute, Description, Field Is Key, and BW-Relev... (Business Warehouse Relevance).

Attribute	Description	Field Is Key	BW-Relev...
<input checked="" type="checkbox"/> ZSLOC	SLOC for Whirlpool	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> ZSTKNSTK	STK NSTK for Whirlpool	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> ZVALCLASS	VAL CLASS for Whirlpool	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> ZMATGROUP	MatGroup Whirlpool	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			

The bottom status bar shows various system indicators, including "Change", "Disconnect...", "Pointpoints", "Whirlpool M...", "3 Interne...", "Inbox - Micr...", and the local intranet path.

## Weighting and Percentages

105 Points	15 + 15 + 15 Points	= 150 Points = 100%
ZM123456	Short text 123456	} 100% match
ZM123456	Short text 123456	
ZM123456	Short text 1234	135 Points = 90% match
ZM123456	Short	120 Points = 80% match
ZM123456	Shot	105 Points = 70% match
ZM123	Short	15 Points = 10% match

## Threshold

**Automatic Add to Group**

**Manual User Intervention**

**Automatic Create because it is a  
New Product**

**Upper Threshold 95%**

**Lower Threshold 80%**

# File and XI (Initial Load)

Microsoft Excel - SAP MDM Master Data.xls

File Edit View Insert Format Tools Data Window Help

Arial 10 B I U

H3

	A	B	C	D	E	F	G	H	I
1	Plant	Material	Description	Mat Grp	SLOC	Val Class	StkNStk		
2				commodity code	storage location	grouping for expense management	stock or not stock		
3	P004	ZM00020016	ABS MOD PAD						
4	P003	ZM00020058	ABS 1.00						
5	P003	ZM00020062	ABS 1.00						
6	P003	ZM00020063	ABS 1.00						
7	P003	ZM00020064	ABS 0.37						
8	P004	ZM00020065	ABS STRI						
9	P003	ZM00020077	ABS 0.50						
10	P003	ZM00020079	ABS 2.00						
11	P004	ZM00020094	ABS MC2						
12	P004	ZM00020127	ABS STRI 3/4B						
13	P004	ZM00020131	ABS MC6 WITH						

**RFCCreq2ProxyReq: Change Message-Mapping**

Message Mapping View Edit Window

**Change: Message-Mapping**

Name: RFCCreq2ProxyReq Namespace: http://xi.ag/testNsp1 Document ... Being Processed

Description: Map RFC Request BAPI\_MESSAGE\_GETDETAIL to Message Type

Design Test

**RFC Request Message**  
BAPI\_MESSAGE\_GETDETAIL  
testComponent

**Message-Type**  
MessageDetailMessage  
http://xi.ag/testNsp1  
testComponent

**BAPI\_MESSAGE\_GETDETAIL**

- TEXT
- ID
- LANGUAGE
- LINKPATTERN
- MESSAGE\_V1
- MESSAGE\_V2

**MessageDetailMessage**

- TEXT
- ID
- LANGUAGE
- LINKPATTERN
- MESSAGE\_V1

Functions: Arithmetic add multiply divide max min subtract



# Process Chain (Initial Load)

**SAP** Welcome Manager MD

Search Personalize: Page | Portal Log Off Add To Favorites

Workflow **Process Control** Data Consolidation Products Business Partners Technical Assets Publication

Overview **Process Chain** Process Monitor

Process Chain Execution View Goto Settings System Help

**Process Chain Maintenance Planning View Load products from different**

Descript./Descript.

- MDM Demo Process Chains
- Not Assigned
  - Load products from different**
  - m1
  - Materialtypes
  - MDM\_LOAD\_VENDORS
  - MDM\_LOAD\_VENDORS
  - Metadatenextraktion
  - Test\_Inbox
  - Vendor\_Extract\_from\_81
  - VS\_BUPA\_TEST
- RAMDM3 Training

**AND**  
EVEN\_AHX1NX9CAAT5FBEZZHHF95LE0

**Synchronization**  
DEFAULT

**Matching**  
MDM\_LOAD\_MATERIALS\_DIFF\_CLNTS

**Merging**  
MDM\_LOAD\_MATERIALS\_DIFF\_CLNTS




**Post**  
MDM\_LOAD\_MATERIALS\_DIFF\_CLNTS

Version 'M' of chain MDM\_LOAD\_PROD\_DIFF\_CLNTS was saved without checking DBS (1) (050) iwdf1803 INS

# Matching – Clearing List (Initial Load)



## Maintain Work Items

### My Change Requests

	Name	Description	Created on	Nr. of All Work Items	Activated	Activatable	Users	Status	
	Material Master ERP2	Material master ERP2 matching worklist	Mon Feb 03 14:28:08 CET 2003	502	417 (83.07%)	71 (14.14%)	BLACKP (Peter Black), SYBIL_ADMINER (Sybil Adminer), GREENF (Frank Green)	Activated	<a href="#">Activate</a>
	Suppliers ERP1	Supplier Master ERP1	Mon Mar 03 11:36:54 CET 2003	207		1 (0,48%)	GREENF (Frank Green), URGENTEJ (Jean Urgenté), VEITENB (Bjørn Veiten)	Open	<a href="#">Activate</a>
									Line 1/3

[Go to Worklist](#)

### My Work Items

	Object Type	Assigned Items
	com/sap/ci/businessstypes/ciPartner	1
		Line 1/1

[Go to Clearing List](#)

# Matching – Maintain Work Items (Initial Load)

## Matched Objects of Type com/sap/ci/business/types/ciPartner

Select All Deselect All

	Status	System	Type	Key	Name	DUNS	Matching Proposals	Name of Matching Process	Matched on
<input type="checkbox"/>	Assigned to GREENF	ERP1	Vendor	471133	MAN TORBOMASCHINEN AG SCHWEIZ	11-231-5623	1	IdPartner	Fri Jan 31 15:02:14 CET 2003
<input type="checkbox"/>	Assigned to VEITENB	ERP1	Vendor	474566	Beitur SA	67-482-6297	1	IdPartner	Fri Jan 31 15:02:32 CET 2003
<input type="checkbox"/>	Assigned to VEITENB	ERP1	Vendor	474567	Triton Pumpen GmbH	87-324-3211	2	IdPartner	Fri Jan 31 15:02:32 CET 2003
<input type="checkbox"/>	Released by VEITENB	ERP1	Vendor	474588	Shieldfield Windshields England		1	IdPartner	Fri Jan 31 15:02:33 CET 2003
<input type="checkbox"/>	Unassigned	ERP1	Vendor	474589	ABC Parts Incorporated	48-654-5920	2	IdPartner	Fri Jan 31 15:02:33 CET 2003
<input type="checkbox"/>	Unassigned	ERP1	Vendor	474590	Powerplay Energy UK		1	IdPartner	Fri Jan 31 15:02:34 CET 2003
<input type="checkbox"/>	Unassigned	ERP1	Vendor	474910	Softlab Integration Technology Inc.		1	IdPartner	Fri Jan 31 15:02:34 CET 2003
<input type="checkbox"/>	Unassigned	ERP1	Vendor	475001	Heiner & Partner	10-435-5943	1	IdPartner	Fri Jan 31 15:02:35 CET 2003
<input type="checkbox"/>	Unassigned	ERP1	Vendor	475030	Maxout Electrics Limited	45-794-3928	1	IdPartner	Fri Jan 31 15:02:49 CET 2003
<input type="checkbox"/>	Unassigned	ERP1	Vendor	475032	Dummy Supplier		1	IdPartner	Fri Jan 31 15:02:50 CET 2003



Line 1/89

☐ Show Items in Group View

Access Items

# Matching – Maintain Work Items (Initial Load)

## Maintain Work Items

**Matching Process** IdPartner

**Matched on** Fri Jan 31 15:02:33 CET 2003

**Object Type** com/sap/ci/businesstypes/ciPartner

1/2 [Next Item](#) ▶

[Compare](#) [Save](#) [Release](#) [Cancel](#) [Back](#)

	System	Name	DUNS	Type	Key	Timestamp	
<input type="checkbox"/>	SEL ERP1	ABC Parts Incorporated	48-654-5920	Vendor	474589	Fri Jan 31 14:54:12 CET 2003	
--- ☐ ----- Score: 95 ----- <a href="#">Add to Group</a> ----- <a href="#">Add and Go to Next Item</a> ----- <a href="#">Remove from Group</a> -----							
<input type="checkbox"/>	ERP2	ABC Parts Inc.	48-654-5920	Vendor	560037	Thu Jan 30 10:51:20 CET 2003	Accepted
<input type="checkbox"/>	Exchange1	Advanced Business Connection Parts Incorporated	48-654-5920	Vendor	1298	Thu Jan 30 10:51:20 CET 2003	Accepted
--- --- ----- Score: 20 ----- <a href="#">Add to Group</a> ----- <a href="#">Add and Go to Next Item</a> ----- <a href="#">Remove from Group</a> -----							
<input type="checkbox"/>	ERP2	ABC GmbH	10-562-9002	Vendor	518922	Thu Jan 30 10:43:41 CET 2003	Accepted

# Matching – Maintain Work Items (Initial Load)

## Maintain Work Items

	1	2	3
System	ERP1	ERP2	Exchange1
Name	ABC Parts Incorporated	ABC Parts Inc.	Advanced Business Connection Parts Incorporated
DUNS	48-654-5920	48-654-5920	48-654-5920
Type	Vendor	Vendor	Vendor
Key	474589	560037	1298
Country	US	US	US
Region	IL	IL	IL
City	Chicago	Chicago	Chicago
Street	Newton Dr	NDW 98	98 Newton Drive West
House No.	98		
TaxID			78223-456789
Timestamp	Thu Jan 30 10:43:41 CET 2003	Thu Jan 30 10:43:41 CET 2003	Thu Jan 30 10:43:41 CET 2003
			Page 1/1

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# SAP MDM Use Case Example: Cross-Group Reporting

## SHELL

- Shell produces ~ 3 % of the world's oil supply in 55 refineries in 33 countries
- Daily purchasing bill in the Millions on products from pens to drill bits

**Problem: How to efficiently manage suppliers worldwide**

## Solution

### mySAP SRM with Content Consolidation

- Partner in Strategic Dev. Project to develop cross system Master Data Management
- Enables Shell to synchronize data across the landscape

**Global Spend analysis** will enable

- Successful purchasing negotiations
- Right business decisions
- Sustained Competitive advantages



[www.shell.com](http://www.shell.com)

# Single Army Logistics Enterprise (SALE)

## Factory

## End-to-end business view

Army Logistics Enterprise

LMP

Master data management

PLM+

Information exchange

GCSS Army

Defense Finance & Accounting Service (DFAS)  
Defense Automatic Addressing System Center (DAASC)

Personnel systems  
External interfaces

Original equipment manufacturer (OEM)

Defense Logistics Agency (DLA)

TRANSCOM

External interfaces

- **LMP**: Logistics Modernization Program
- **GCSS Army**: Global Combat Support System Army
- **PLM+**: Product Life-Cycle Management Plus

Foxhole



# Q&A